

SILKWORM SEED TECHNOLOGY LABORATORY, KODATHI, BENGALURU

PROCEEDINGS OF 51st MEETING OF RESEARCH COUNCIL

The 51st meeting of Research Council of Silkworm Seed Technology Laboratory (SSTL), Kodathi was held on 20.03.2020. At the outset, Dr. K.M.Vijaya Kumari, Scientist D & Head, SSTL welcomed the Chairperson Dr. R. K. Mishra, Director, NSSO, and other members (Annex-1). She briefed the house about the SSTL activities during the period under report and requested the Chairperson to conduct the meeting. Dr. R. K. Mishra took up the meeting as per the Agenda.

Item No. 1: Confirmation of the minutes of the 50th RC meeting

Since no comments were received from any of the members, the minutes were confirmed.

Item No. 2: Follow-up action taken on the decisions/ suggestions of the last Research Council meeting

The follow- up actions of the comments / suggestions emanated from the last RC meeting was reviewed in the meeting. Point wise actions taken are as detailed here under.

1. With regard to Project APS 3581 as suggested by RC large scale testing was carried out at 3 selected SSPCs and the encouraging outcome results of the study were presented. Further, Director NSSO & Committee members suggested going for On Station Trials (OST) to calculate techno-economics and apply for patenting.
2. Regarding project APS 3612 as per RC advice, collected two/three days Muga eggs and preserved in single step refrigeration at various temperatures for different durations but the positive results were recorded in the mixed eggs preserved at 15°C for 15 days with 85% hatching. Based on single step result, preservation schedule was made for mixed eggs. With this schedule eggs can be preserved up to 18 days with 2 days of post preservation / incubation period which resulted in 85% hatching.
3. In respect of APR 3635, as per the suggestions of the RC, Daba TV eggs of 60h embryo preserved at 15°C (15 days), 20°C (1day) with 2 days progressive incubation resulted 86% of hatching. And the mixed eggs preserved at 15°C (20 days) ,20°C(1day) with 1 day of progressive incubation resulted 65% of hatching, whereas, in BDR10 15°C for 15 days preservation with. 2 days progressive incubation resulted 90 % of hatching.
4. In the project, ARP 3634 the suggestions of RC were followed focusing mainly on Muscardine and Flacherie for successful noticeable results.
5. Project - APS05001EF: As per the suggestions of RC, the project work is going-on in designed manner for timely achievement of the target.
6. Test verification of Development of egg preservation techniques for Eri silkworm, *Samia Ricini* (Donovan) (collaborative between CMERTI, Lahdoigarh (PI) & SSTL (CI) under APS-5859 was done at laboratory level. The said earlier developed schedule for 11 days was test verified and the rearing was conducted at laboratory level.

Item No. 3: Review of concluding /concluded projects / programmes during the period under review.

Nil

Item No.4: Review of progress of on-going projects/programmes of the Institute

1. APS 3612 - Development of seed preservation technology for Muga silkworm *Antheraea assamensis* Helfer (Collaboration with CMERTI, Lahdoigarh) - Dr. B. Sailaja, Scientist C

The Committee observed the following:

1. Objective wise work progress and the single and multiple step preservation schedule for three days Muga eggs were noticed. The final 18 days egg preservation with 2 days post preservation/incubation period and hatching % results the committee observed.

2. The Committee suggested to share the Muga egg preservation details developed at SSTL with CMERTI for conducting preservation and Bio-assay studies at CMERTI. The Committee recommended to conclude and submit the project details in form 10 after completion of Bio-assay studies.

2. APR 3635- Development of Seed cocoon and seed preservation technology for Tropical Tasar Silkworm *Antheraea mylitta* D. (Collaboration with BTSSO, Bilaspur) - Dr. P.Sudhakara Rao, Scientist- D.

The Committee observed the following:

The committee suggested to conduct one more trial for egg preservation of DTV and BDR 10 for confirmation of results.

2. The Committee advised to preserve the Tasar cocoons on or above 20° C to prevent the erratic emergence.

3. ARP 3634 - Microbial Transformation of Natural and eco-friendly chemical compounds for the management of Silkworm Diseases of *Bombyx mori* L. Dr. R. Saravana Kumar, Scientist -C.

The Committee observed the following:

1. To find out the nature of metabolite / compound extracted through conversion for identifying antimicrobial agent.

4. APS05001EF" Development of Technology for Enhancing egg laying in Vanya Silk moths by application of Host Plant Volatiles" (Collaboration with CMERTI, Lahdoigarh and IIHR, Bengaluru) - Dr. K.M.Vijaya Kumari, Scientist D

The Committee observed the following:

1. The Committee observed the results presented and suggested to proceed in similar line. Regarding sound experiment Committee suggested to procure literature for getting good results.

Item No.5: Review of New Project Proposals recommended for approval

New Project Concept 1: Evaluation of Reproductive Efficiency and Inter-Racial differences in pipeline breeds / hybrids Of Mulberry Silkworm (*Bombyx Mori* L.) submitted by Dr. Veeranna Gowda

The Committee suggested, to revise the title and modifying the objectives. The Committee suggested to submit the concept note in the new format after doing suggested corrections.

New Project Concept 2: Improvisation, Evaluation and Development of Eri Silkworm, *Samia ricini* (Donavan) egg handling techniques. Submitted by Dr. B.Sailaja

The Committee suggested to procure and enclose the field problems existed in Eri seed sector which are essential in appraising the concept note. Hence, Committee advised to revise the concept note and present again before the RC.

New Project Concept 3: Production of high active biomolecules from Endophytes for the management of Muscardine disease in silkworm *Bombyx mori* submitted by Dr. R.Saravana Kumar.

The Committee suggested modification in objectives and methodology and advised to revise the concept before submission for approval.

Item No.6: Review of on- going programmes at the institute level.

The Committee reviewed the progress of on-going mandatory programmes of the institute and advised to continue the Training for human resource development, Joint Disease Monitoring Survey in Southern states, Extension and communication programmes, Race maintenance, Quarantine testing of Silkworm eggs, testing of disinfectants/chemicals.

The meeting was concluded with thanks to the Chair.



(Dr. R. K. Mishra)

Director NSSO and Chairperson for RC